

The Australian Species of *Macroteleia* and *Prosapegus* (Scelionidae) Hymenoptera

By ALAN P. DODD.

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This contribution revises and re-describes the Australian species of the above genera, and adds nine new species in *Prosapegus* Kieffer. The members of these two segregates are mostly long slender insects, in which the first abdominal segment is not distinctly narrowed or sub-petiolate; the parapsidal furrows are complete; the marginal vein is often longer and is never much shorter than the stigmal vein, and the postmarginal vein is well developed.

The genera are closely related, differing in propodeal characters as follows:

Propodeum in the female with a raised median area or process, variable in form, triangular, narrow-oblong, or rectangular, which is bidentate at apex; the teeth may be broad, divided to their base, and even completely separated, or they may be replaced by two approximate longitudinal carinae that are joined except at the apex; in the male the process is often reduced to a pair of strongly-raised median carinae; lateral carinae of propodeum strong and complete, and, at least in the male, projecting at the posterior margin	<i>Prosapegus</i>
Propodeum without a raised median area, process, carinae or teeth, the lateral carinae delicate and not projecting at the posterior margin	<i>Macroteleia</i>

Another distinguishing character is the apex of the male abdomen which is unarmed in *Macroteleia* but bears two teeth or spines in *Prosapegus*.

Romilius duris Walker (*Scelio duris* Walker, 1839), founded on a male from Tasmania, should be placed in one of these two genera; the bispinose apex of the abdomen suggests *Prosapegus*, but an examination of the propodeum of the type is required for confirmation.

MACROTELEIA Westwood.

Proc. Zool. Soc. London, iii., 1835, p. 70.

A world-wide genus containing about forty described species. This revision recognises four Australian species. The following group of congeneric species, originally referred by me to *Macroteleia*, is more nearly allied to *Baryconus* Forster, and may be included in a broad interpretation of the limits of the latter genus:—*M. varicornis* Dodd, *M. australica* Dodd, *M. tricolor* Dodd, *M. unicolor* Dodd, *M. setosa* Dodd, *M. minima* Dodd, *M. polita* Dodd, *M. inornata* Dodd, *M. infusata* Dodd, and *M. simillima* Dodd.

KEY TO THE AUSTRALIAN SPECIES OF MACROTELEIA.

1. Female propodeum excavated, the abdomen with a basal process; head and scutum smooth; male antennae with funicle 2 longer than 1 *cornuta*

Female propodeum not excavated, the abdomen without a basal process; head and scutum densely punctate; male antennae with funicle 2 shorter than 1						2
2.	Major colour bright orange					<i>apicalis</i>
	Head, thorax and abdomen black					3
3.	Postmarginal vein twice as long as the marginal; female abdomen $2\frac{1}{2}$ -3 times as long as head and thorax					<i>magna</i>
	Marginal and postmarginal veins subequal; female abdomen a little less than twice as long as head and thorax					<i>torresia</i>

MACROTELEIA CORNUTA Dodd.

Trans. Royal Soc. South Aust., xxxvii, 1913, p. 178.

Female.—Length, 4.30 mm. Black, the tegulae brown; legs, including the coxae, golden-yellow; first five antennal joints suffused with yellow.

Head polished, smooth and without sculpture except for a very few scattered punctures, a line of fine punctures on either side of frons against the eyes, and a row of punctures against the occipital margin, each puncture bearing a fine short hair; lower frons lightly depressed medially. Antennal scape moderately long and stout; pedicel $2\frac{1}{2}$ times as long as its greatest width; funicle 1 and 2 elongate, narrower than the pedicel, 1 as long as the pedicel, 2 slightly longer than 1, 3 two-thirds as long as 2, 4 two-thirds as long as 3, somewhat longer than wide; club compact, rather stout, joints 1-5 each twice as wide as long, 1 rather small, 3 slightly the widest. Thorax almost twice as long as its greatest width; pronotum narrowly visible on the sides, punctate; scutum almost as long as its greatest width, its anterior margin narrowly rounded, the median lobe declivous anteriorly, the surface smooth with very scattered small punctures bearing fine white hairs; parapsidal furrows distinct, complete, not foveate or punctate; scutellum smooth with a few small punctures and fine hairs, with a line of foveae against the anterior and posterior margins, the latter faintly concave; metanotum showing as a transverse faintly concave line; propodeum moderately long, deeply excavated to its base to receive the abdominal process, the excavation bounded laterally by the delicate lateral carinae outside which the surface is finely punctate and pubescent, and there is a fringe of white hairs arising on either side of the excavation at its base. Posterior coxae slender, their tibiae very long, twice as long as the femora, the tarsi slightly longer than the tibiae, their basal joint twice as long as 2-5 united. Forewings extending to base of fourth abdominal segment; sub-hyaline; marginal vein a little longer than the stigmal which is very oblique, its apex curved; postmarginal vein twice as long as the marginal; basal and median veins not marked. Abdomen two and one-third times as long as the head and thorax united, its greatest width somewhat narrower than that of the thorax; a little narrowed at base but not sub-petiolate, gradually tapering to apex from segment 3; segments 1-3 not carinate laterally; 1 one-half longer than its posterior width, at base with a slender oblique horn projecting forward into the propodeum as far as the metanotum; 2 one-half longer than 1; 3 a little longer than 2, two-thirds longer than wide; 4 as long as 2; 5 one-fourth shorter than 4; 6 not compressed, scarcely longer than 5, three times as long as its basal width; 1 rather strongly striate, its horn smooth; 2-4 more finely striate and with fine punctures between; 5 and 6 with finer sculpture; lateral margins of 2-5 smooth; dorsum of 2-4 with scattered fine hairs, the pubescence longer and denser on 5 and 6 and along lateral margins.

Male.—Length, 3.50 mm. Scutellum straight posteriorly ; metanotum transverse but not linear, its posterior margin straight; propodeum raised and flat medially, sloping laterally, its posterior margin concave and gently carinate, its surface rugose-punctate medially, finely punctate outside the lateral carinae. Abdomen hardly twice as long as the head and thorax united, widest at the posterior margin of segment 4; anterior margin of 1 convex; 3 no longer than 2; 4 somewhat shorter than 3; 5 two-thirds as long as 4, three-fourths as long as its basal width; 6 one-half as long as 5, no longer than its posterior width; 7 short, one-half as long as 6, broadly truncate or faintly convex at apex; 1-3 with several strong striae; 4 and 5 finely striate and punctate; 6 and 7 punctate and coriaceous. Antennal scape reddish-yellow, the pedicel dusky, the flagellum black; funicle 1 one-half longer than the pedicel, fully twice as long as wide, 2 one-half longer than 1, 3 as long as 2, 4-9 gradually shortening, 9 as long as 1.

Habitat.—North Queensland; Cairns district, one pair.

Holotype in the South Australian Museum, I. 1,445.

Very distinct from the other species in the long abdominal process and excavated propodeum in the female, the smooth head and scutum, and the differences in antennal segmentation in both sexes.

MACROTELEIA APICALIS Dodd.

Proc. Royal Soc. Queensland, xxvi, 1914, p. 99.

Female.—Length, 4.25 mm. Bright brownish-yellow or orange, the eyes and ocelli black; vertex of head and apical segment of abdomen dusky-black; segments 1 and 5 of abdomen dark brown; legs golden-yellow; first six antennal joints yellow, the club black.

Head shaped as in *M. magna* except that the vertex behind the ocelli slopes precipitiously to the occipital margin; cheeks, frons and vertex with numerous rather small punctures bearing fine pale pubescence, the punctures dense but not confluent towards the occiput; frontal impression shallow, smooth medially; mandibles rather small, tridentate. Antennal scape moderately long; pedicel slender, almost three times as long as its greatest width; funicle 1 as long as the pedicel and a little narrower; 2 two-thirds as long as 1, twice as long as its greatest width; 3 somewhat longer than wide; 4 wider than long; club 6-jointed, joint 1 a little wider than long, 2-5 each twice as wide as long. Thorax almost twice as long as its greatest width; pronotum narrowly visible, densely punctate; scutum as long as wide, with numerous setigerous punctures; parapsidal furrows complete, punctate; scutellum with scattered fine punctures bearing fine pale hairs; metanotum very transverse, foveate, at meson projecting shortly and narrowly into the propodeum; propodeum narrowly and completely divided at meson, its posterior border gently concave and not margined, finely punctate laterally, finely punctate and striate medially, the lateral carinae fine and hardly distinguishable. Forewings reaching almost to apex of segment 4 of abdomen; faintly stained; venation thick and distinct; marginal vein one-half longer than the stigmal which is rather short and scarcely oblique, the postmarginal twice as long as the marginal. Abdomen two and one-third times as long as the head and thorax united, somewhat narrower than the thorax; segments 1-3 carinate laterally; 1 somewhat raised at base, its anterior margin convex and fitting close to the propodeum; 1 a little longer than its posterior width; 2 one-half

longer than 1; 3 a little longer than 2, one-half longer than wide; 4 as long as 2; 5 somewhat shorter than 4; 6 slightly longer than 3, strongly compressed dorso-ventrally and narrowly acuminate; wholly finely longitudinally striate and with obscure punctures between; dorsum of 2-4 with fine short pubescence, 5 and 6 and sides of abdomen with longer conspicuous pubescence.

Male.—Unknown.

Habitat.—North Queensland; Herbert River, the holotype female in March, A. P. Dodd.

Holotype in the South Australian Museum, I. 11,013.

Agrees very closely in structure and sculpture with *M. magna* except that the vertex of the head is more precipitous posteriorly.

MACROTELEIA MAGNA Dodd.

Trans. Royal Soc. South Aust., xxxvii, 1913, p. 149.

M. angusta Dodd, ibidem, p. 150.

Female.—Length, 5.50 mm. Black (in spirit specimens often showing brownish), the tegulae yellow; legs, including the coxae, golden-yellow; antennal scape clear yellow, the pedicel and funicle joints somewhat dusky, the club black.

Head from dorsal aspect sub-quadrate, one-third wider than long, the vertex sloping gently to the occipital margin which is gently concave and not carinate; from lateral aspect the vertex and upper frons are rounded, the lower two-thirds of the frons being almost at right angles, so that the head is as long as high and the mouth is situated at the posterior extremity; lower frons depressed above the antennae; eyes moderately large, bare; ocelli well apart, the lateral pair against the eyes; vertex and frons finely coriaceous and with numerous scattered rather small punctures which are dense toward the occiput and on the lower frons except for the smooth median line; cheeks broad, finely coriaceous and rather densely punctate; head with a noticeable pubescence of fine white hairs; mandibles rather small, tridentate, the middle tooth small. Antennal scape long and slender; pedicel slender, almost three times as long as its greatest width; funicle 1 hardly shorter than the pedicel, 2 two-thirds as long as 1, 3 somewhat shorter than 2, a little longer than wide, 4 as wide as long; club compact, rather slender, 6-jointed, joint 1 largest, as long as wide, 2-5 plainly wider than long. Thorax three-fourths longer than its greatest width; pronotum, scutum and scutellum with a conspicuous pubescence of white fine hairs; pronotum narrowly visible, densely punctate; scutum as long as its greatest width, its anterior margin rather sharply rounded, almost flat, with numerous punctures which are dense anteriorly on the median lobe, the parapsides finely coriaceous also; parapsidal furrows complete, punctate; scutellum with numerous punctures, its posterior margin foveate and almost straight; metanotum very short, transverse, foveate, not raised or prominent, at meson with a short projection into the propodeum; propodeum moderately long, sloping laterally, its posterior border gently concave and not margined, the posterior angles not prominent, the lateral carinae delicate and straight, without a median process or carinae but somewhat raised and narrowly divided to its base, punctate and pubescent. Forewings extending to base of fourth abdominal segment; sub-hyaline; venation thick, deep yellow; marginal vein one-half longer than the stigmal vein which is rather short, slightly curved, not very oblique; postmarginal

vein twice as long as the marginal; basal and median veins not indicated. Posterior coxae long, not much shorter than the rather stout femora, the tibiae long and slender, the tarsi slightly longer than their tibiae, their basal joint shorter than 2.5 united. Abdomen $2\frac{1}{2}$ to three times as long as the head and thorax united; somewhat narrower than the thorax; almost as wide at base as its greatest width, its anterior margin somewhat convex and fitting close to the propodeum; segments 1-3 carinate laterally; 1 not raised at base, a little longer than its posterior width; 2 one-half longer than 1, as long as 4; 3 one-half longer than wide, somewhat longer than 2; 5 shorter than 4; 6 as long as 3, strongly compressed dorso-ventrally; 1-5 finely longitudinally striate and with subobsolete punctures between the striae, the punctures more pronounced on 5; 6 punctate on its dorsal ridge, striate laterally; 2-4 with fine short pubescence which is longer on 5 and 6.

Male.—Length, 5.25 mm. Metanotum not projecting at meson; posterior margin of propodeum almost straight. Abdomen two to two and one-third times as long as the head and thorax united; fitting close to the propodeum but the anterior margin is straight; segment 6 two-thirds as long as 5, not compressed; 7 two-thirds as long as 6, as long as its greatest width, pointed at apex; pubescence of abdomen longer and denser than in the female. Antennal scape yellow, the pedicel and funicle joints suffused with yellow or brown, less so apically; pedicel fully twice as long as its greatest width; funicle 1, as long as the pedicel, 3 somewhat shorter than 1, 2 a little shorter than 3; 4-9 subequal, each slightly longer than wide.

Habitat.—Queensland; Cairns district (type); Brisbane; Mt. Tambourine; a small series.

Holotype in the South Australian Museum, I. 1,389.

M. angusta Dodd appears to be merely a small male, 3.50 mm. of this species.

MACROTELEIA TORRESIA Dodd.

Trans. Royal Soc. South Aust., xxxvii, 1913, p. 150.

Macroteleia perkinsiana Dodd, Trans. Soc. London, 1919, p. 327.

Female.—Length, 3.40 mm. Black; legs reddish-yellow, the coxae usually fuscous; antennal scape yellow, the pedicel and funicle joints fuscous, the club black.

Head shaped as in *magna*; frons and vertex between the ocelli with numerous small punctures which are dense and sub-confluent between the ocelli and the occiput and on the cheeks; a smooth area on lower frons medially; pubescence fine and pale. Antennal scape slender; pedicel long and slender; funicle 1 narrower and shorter than the pedicel, $2\frac{1}{2}$ times as long as its greatest width; 2 one-half as long as 1, slightly longer than wide; 3 slightly wider than long; 4 transverse; club 6-jointed, joint 1 longest but wider than long, 2-5 each twice as wide as long. Thorax two-thirds longer than its greatest width; pronotum, scutum, and scutellum with fine whitish pubescence; pronotum narrowly visible, densely punctate; scutum almost as long as its greatest width, its anterior margin rather broadly rounded, with moderately dense small punctures which are confluent on the median lobe anteriorly; parapsidal furrows complete, punctate, not very conspicuous; scutellum with small scattered punctures; metanotum very transverse, not prominent, foveate, its posterior margin straight; propodeum moderately long,

raised medially, sloping laterally, the posterior border gently concave and not margined, the median line apparently not divided; surface of propodeum finely punctate and, except laterally, longitudinally striate, the lateral carinae very delicate and hardly distinguished from the striae. Forewings extending to apex of fourth abdominal segment; sub-hyaline; venation thick, deep brown; marginal and postmarginal veins subequal, each twice as long as the stigmal vein which is rather short, not very oblique, straight; basal and median veins faintly marked. Legs much as in *magna*. Abdomen a little less than twice as long as the head and thorax united, a little narrower than the thorax; slightly narrowed at base, narrowly acuminate at apex, its basal margin lightly convex and fitting close to the posterior margin of the propodeum; segments 1-3 carinate laterally; 1 as long as its posterior width; 2 one-half longer than 1; 3 slightly longer than 2, scarcely longer than wide; 4 as long as 2; 5 two-thirds as long as 4; 6 as long as 3, strongly compressed dorso-ventrally; 1-4 finely longitudinally striate and with sub-obsolete punctures between the striae; 5 very finely striate and with fine punctures between; 6 punctate on its dorsal ridge, finely striate laterally; 2-4 with very fine short pubescence, 5 and 6 and sides of abdomen with longer conspicuous pubescence.

Male.—Length, 3-3.30 mm. Basal margin of abdomen straight and free from the propodeum; abdomen more pubescent than in the female; segment 6 broad, not compressed, two-thirds as long as 5; 7 acutely triangular, much shorter than 6; punctures distinct on 5-7. Antennal scape yellow, the pedicel and basal funicle joints suffused yellowish; pedicel twice as long as its greatest width; funicle 1 slightly shorter than the pedicel, 3 somewhat shorter than 1, one-third longer than wide, 2 a little shorter than 3, as wide as long, 4-9 subequal, each as wide as long.

Habitat.—Queensland; Thursday Island; Pentland; Proserpine, Westwood; Wowan; Bundaberg; Mt. Tambourine; Chin-chilla; five males, five females, in November-April.

Holotype and *Allotype* in the South Australian Museum, I. 1,390.

A widely-distributed although not common species; the type locality is Proserpine. A smaller species than *M. magna*, the abdomen shorter in relation to the head and thorax, and the postmarginal vein not longer than the marginal. *M. perkinsiana* Dodd, erected on two females from Bundaberg, is a true synonym.

PROSAPEGUS Kieffer.

Ann. Soc. Sci. Brussels, xxxii, 1908, pp. 121, 147.

Apegus Ashmead (not Forster), Bull. U.S. National Museum, xlv, 1893, p. 226.

Cacellus Dodd (not Ashmead), Trans. Royal Soc. South Australia, xxxix, 1915, p. 445; ibidem, xl, 1916, p. 23-24; Archiv fur Naturg. Berlin, lxxx, 1915. *Macroteleia* (part) Dodd (not Westwood), Proc. Royal Soc. Qld. xxvi, 1914, p. 100; Archiv fur Naturg. Berlin, lxxx, 1915; Trans. Royal Soc. South Australia, xxxix, 1915, p. 444. *Alloteleia* Kieffer, Broteria, xv, 1917, p. 59.

This genus was erected by Kieffer for *Apegus elongatus* Ashmead. The female of this insect has not been described; yet in all his works Kieffer has assumed that the female antennae are without a terminal club.

Several years ago, Mr. A. B. Gahan of the U.S. Bureau of Entomology kindly compared specimens of *Cacellus giganteus* Dodd and *C. propinquus* Dodd with the type of *elongatus*, and furnished me with valuable notes from which it appears evident that the Australian species are congeneric with the North American insect. I had already made this suggestion (Trans. Ent. Soc. London, 1919, p. 321).

Mr. Gahan states that the head of *elongatus* is more quadrate than in *giganteus* and *propinquus*, but this is true of at least one Australian species. Further, he gives the following characters of *elongatus*, some of which are always present in the Australian species: Propodeum with two high carinae which converge but do not meet posteriorly; dorsum of abdomen with a median carina on segment 2 and lateral carinae on segments 1-3.

Alloteleia appendiculata Kieffer, founded on a male from the Philippine Islands, is undoubtedly congeneric with the Australian species, a fact which is established from an examination of the description of this, the genotype and only described species.

Thus *Prosapegus* should contain one species from North America, one from the Philippine Islands, three from New Guinea (*P. violaceus* Dodd, *P. atrellus* Dodd, and *P. metatarsalis* Dodd), and one from Fiji (*P. glorianus* Dodd), while in this paper fifteen species are recognised from Australia. The species vary in size from moderately large to very large; *P. violaceus* from New Guinea is one of the largest known Scelionids, and *P. giganteus* and *P. insignis* are the largest members of the family from Australia. They are slender *Macroteleia*-like forms with the exception of *P. validus* which is a stouter insect with a general resemblance to species of *Oxyscelio* Kieffer and *Hoploteleia* Ashmead.

Most of the Australian species are closely related, and are distinguished by small structural and sculptural differences.

KEY TO THE AUSTRALIAN SPECIES OF PROSAPEGUS Kieffer.

1. Females	2
Males	16
2. Propodeal process triangular with one median carina; size very large	<i>giganteus</i>
Propodeal process with two median carinae or none, or divided into two teeth	3
3. Segments 2-4 of abdomen strongly sparsely striate, the punctures between rather indefinite; teeth of propodeum small, well-separated	<i>nigriscapus</i>
Segments 2-4 densely punctate, sometimes with more or less distinct, but fine, striae	4
4. Teeth of propodeum widely separated	<i>discissus</i>
Teeth of propodeum joined or at least close together at base	5
5. Pubescence of abdominal segments 5-6 scattered	<i>insignis</i>
Pubescence of segments 5-6 dense	6
6. Abdomen shorter, one-fourth longer than the head and thorax; funicle 1 no longer than the pedicel	<i>validus</i>
Abdomen longer, at least one-half longer than the head and thorax; funicle 1 plainly longer than the pedicel	7
7. Punctures of median lobe of scutum becoming small and indefinite posteriorly; thorax and abdomen more or less brownish	<i>fuscicorpus</i>
Punctures of median lobe not small and indefinite posteriorly; thorax and abdomen wholly black	8
8. Punctures of median lobe sparse on posterior half; propodeum on either side with a long straight carina inside the lateral carina which it joins posteriorly; coxae dark	<i>infusus</i>

	Punctures of median lobe even in density; propodeum without the inner carina, or if present it is short and joins the posterior margin well inside the lateral carina; coxae red or yellow ..	9
9.	Propodeal process broad, narrowly divided, the teeth broad; abdomen more slender apically, segment 5 plainly longer than its basal width, 6 at least twice as long as its basal width ..	<i>extensus</i>
	Propodeal process either narrow or broadly divided almost to its base; abdomen less slender apically, segment 5 never longer than its basal width, 6 less than twice as long as its basal width ..	10
10.	Anterior margin of abdomen straight, not projecting forward into the propodeum	11
	Anterior margin of abdomen not straight, projecting forward into the propodeum	14
11.	Punctures of median lobe of scutum larger, well separated ..	<i>illustris</i>
	Punctures of median lobe smaller, confluent or sub-confluent ..	12
12.	Apex of abdomen convex	13
	Apex of abdomen concave and bispinose	<i>augustus</i>
13.	Lateral carinae of propodeum curved; abdomen two-thirds longer than the head and thorax, segment 2 one-half longer than 1, 6 longer than its basal width	<i>regalis</i>
	Lateral carinae of propodeum straight; abdomen one-half longer than the head and thorax, segment 2 one-fourth longer than 1, 6 no longer than its basal width	<i>distinctus</i>
14.	Abdomen with a convex ridge medially, segments 1-3 without a lateral carina	<i>fissilis</i>
	Abdomen without a convex ridge medially, segments 1-3 with a lateral carina	15
15.	Abdomen one-half longer than the head and thorax; teeth of propodeal process narrowly separated	<i>solitus</i>
	Abdomen twice as long as the head and thorax; teeth of process well separated	<i>accultus</i>
16.	Propodeal process triangular with one median carina; size very large	<i>giganteus</i>
	Propodeal process with two median carinae or none; size smaller, except in <i>insignis</i>	17
17.	Abdomen very sparsely striate	<i>nigriscapus</i>
	Abdomen densely punctate, or if striate the striae are numerous ..	18
18.	Propodeum with a long carina between the median process and the lateral carina, joining the latter posteriorly	<i>infusus</i>
	Propodeum either without a carina between the median process or carina and the lateral carina, or with a short carina that joins the posterior margin well inside the lateral carina	19
19.	Propodeal process broad with two stout teeth	20
	Propodeal process either narrow, with two approximate teeth or carinae, or reduced to a pair of carinae	21
20.	Abdomen scarcely narrower than the thorax, segment 3 wider than long	<i>insignis</i>
	Abdomen distinctly narrower than the thorax, segment 3 longer than wide	<i>extensus</i>
21.	Punctures of median lobe of scutum small and scattered posteriorly ..	22
	Punctures of median lobe large and numerous posteriorly ..	23
22.	Median carinae of propodeum parallel and close together; postmarginal vein $2\frac{1}{2}$ times as long as the marginal	<i>fuscicarpus</i>
	Median carinae of propodeum wide apart at base; postmarginal vein one-half longer than the marginal	<i>discissus</i>
23.	Propodeal process in the form of a long narrow bicarinate tooth that projects well beyond the posterior margin medially ..	24
	Propodeal process reduced to a pair of raised carinae that hardly project beyond the posterior margin medially	25
24.	Carinae of propodeal process approximate for their entire length, a strong carina present on either side; punctures of scutum larger	<i>illustris</i>
	Carinae of process divergent towards base; no strong carina on either side; punctures of scutum smaller	<i>solitus</i>
25.	Propodeum long medially, the median carinae sub-parallel ..	26
	Propodeum rather short medially, the median carinae converging posteriorly	27
26.	Segments 2 and 3 of abdomen slightly longer than wide; basal joint of posterior tarsi longer than 2.5 united	<i>fissilis</i>

- Segments 2 and 3 much longer than wide ; basal joint of posterior tarsi a little shorter than 2-5 united *augustus*
 27. Posterior margin of propodeum gently concave between the lateral carinae *regalis*
 Posterior margin of propodeum deeply concave between the lateral carinae 28
 28. Abdomen three-fourths longer than the head and thorax, six times as long as its greatest width, segments 1-4 each plainly longer than its posterior width *accultus*
 Abdomen one-half longer than the head and thorax, not more than four times as long as its greatest width, segments 1-4 each no longer than its posterior width *distinctus*

PROSAPEGUS GIGANTEUS Dodd.

Cacellus giganteus Dodd, Archiv. fur Naturg., Berlin, lxxx, 1915.

Female.—Length, 7.50 mm. Black ; legs, including the coxae, golden-yellow ; tegulae, mandibles, and antennal scape deep red or black.

Head from dorsal aspect twice as wide as long, the vertex sloping sharply from immediately behind the lateral ocelli to the occiput which is gently concave ; ocelli very large, separated from each other by their diameter, the lateral pair narrowly separated from the eyes which are large and bare ; frons with large, rather scattered punctures, denser ventrally, each bearing a fine hair ; frontal impression shallow, broad and smooth ; vertex behind the ocelli highly polished, rather densely pubescent, with indefinite confluent punctures forming longitudinal grooves separated by blunt striae or indefinite carinae, or with definite large punctures arranged in longitudinal rows ; cheeks rather narrow, with scattered punctures ; mandibles broad, tridentate, the teeth blunt. Antennal scape long and slender ; pedicel twice as long as its greatest width ; funicle 1 elongated, twice as long as the pedicel, one-half as long as the scape ; 2 slightly more than one-half as long as 1 ; 3 as wide as long ; 4 somewhat widened, wider than long ; club compact, joint 1 a little wider than long, 2-5 each twice as wide as long. Thorax one-half longer than its greatest width ; pronotum with longitudinal grooves bearing indefinite punctures ; median lobe of scutum with large rather dense punctures, shortly smooth against the declivous anterior margin, the lateral lobes with shallower punctures ; parapsidal furrows deep, a little curved, indefinitely punctate ; scutellum with scattered punctures ; pronotum, scutum and scutellum shining, with a pubescence of scattered long fine hairs ; propodeum long, not greatly shorter medially than laterally, finely pubescent outside the lateral carinae, which are strong, straight, and close to the base of the median process, the posterior margin gently concave but with a strong projection at the junction of the lateral carinae ; a strong carina runs sharply oblique on either side from about one-half the length of the median process to join the lateral carina at the posterior margin ; median process smooth, flat, triangular, not projecting beyond the posterior margin, slightly longer than its basal width, strongly carinate laterally and with a median carina which terminates before the apex, the lateral carinae oblique but shortly parallel posteriorly and raised to form from lateral aspect a pair of rounded teeth. Forewings reaching to apex of fifth abdominal segment ; deeply smoky ; venation thick, blackish ; marginal vein as long as the stigmal, the postmarginal slightly longer than the marginal ; radial, basal, and median veins represented by thick brown lines, M3+4 and Cul by

pale brown lines. Posterior tarsi as long as their tibiae, their basal joint as long as 2-5 united. Abdomen two-thirds longer than the head and thorax, its greatest width at base of segment 3 two-thirds that of the thorax; segment 1 three-fourths as long as its posterior width, as long as its basal width, its anterior margin straight; 2 almost twice as long as 1; 3 as long as 2, as long as wide; 4 a little shorter than 3, slightly longer than its posterior width; 5 somewhat shorter than 4; 6 a little shorter than 5, as long as its basal width, terminating in an acute point or spine; 1 not raised nor projecting forward at base; 2-5 with a strong median carina; 1-4 with a strong lateral carina; 1 strongly striate, smooth between the striae, showing faint punctures laterally; 2-4 strongly confluent punctate with a longitudinal arrangement and showing traces of striae; 5 more shallowly punctate; 6 shallowly fine punctate, finely coriaceous apically; 1-4 dorsally with short pubescence, which is longer and denser on 5 and 6 and along the lateral margins.

Male.—Segment 2 of abdomen about three-fifths longer than 1, a little shorter than 3, slightly longer than 4; 6 slightly more than one-half as long as 5, a little shorter than its basal width; 7 short, transverse, its posterior margin broadly concave and armed with a stout acute tooth or spine at either angle. Antennae black, the scape and apex of pedicel either dull red or black; scape moderately short; pedicel short, not greatly longer than wide; funicle 1 one-half as long as the scape, twice as long as the pedicel; 2 and 3 subequal, each two-thirds as long as 1; 4-9 subequal, each slightly shorter than 3 and two-thirds longer than wide.

Habitat.—North Queensland; Cairns district, four females, four males in January-April, A. P. Dodd.

Holotype in the South Australian Museum.

The largest representative of the family known from Australia. The triangular propodeal process with its single median carina will distinguish it from the other Australian species. *P. atrellus* Dodd from Dutch New Guinea is a close relation of *giganteus*.

PROSAPEGUS NIGRISCAPUS Dodd.

Macroteleia nigriscapa Dodd, Archiv. fur Naturg., Berlin, lxxx, 1915. *Macroteleia paucipunctata* Dodd, Trans. Royal Soc. South Aust., xxxix, 1915, p. 444.

Female.—Length,—3.00 mm. Black, the tegulae red; legs, including the coxae, golden-yellow; antennal scape and the funicle joints yellow, the pedicel fuscous, the club black.

Head from dorsal aspect almost twice as wide as long; vertex moderately long, sloping shortly and sharply to the occipital border which is gently concave and not margined; ocelli moderately large, the lateral pair touching the eyes, separated from the anterior ocellus by twice their diameter and from each other by a somewhat greater distance; upper frons and vertex between the ocelli smooth with numerous scattered moderately small punctures; behind the ocelli the punctures are larger and there is a transverse row of confluent punctures against the occiput; frontal impression broad and shallow; cheeks with numerous punctures. Antennal scape moderately long and slender; pedicel slender, $2\frac{1}{2}$ times as long as its greatest width; funicle 1 slightly longer than the pedicel, 2 somewhat shorter than 1, 3 shorter than 2, one-half longer than wide, 4 as wide as long; club

compact, joint 1 a little wider than long, 2-5 each twice as wide as long. Thorax one-half longer than its greatest width; pronotum very narrowly visible, densely punctate and pubescent; scutum somewhat shorter than its greatest width, shortly declivous anteriorly, smooth with very fine scattered punctures, the anterior half of the median lobe with dense punctures of moderate size; parapsidal furrows foveate, broad, not widening posteriorly where they are separated by twice their own width; scutellum with a few minute punctures; pubescence of scutum and scutellum of long fine white hairs; metanotum very short, unarmed; propodeum long laterally, extremely short medially, the posterior margin very deeply concave from the lateral angles, the lateral carinae short; medially the posterior margin bears a fringe of white hairs, and on either side at base there is a sub-erect tooth bearing long hairs. Legs slender; posterior tarsi no longer than their tibiae, their basal joints as long as 2-5 united. Forewings reaching apex of fifth abdominal segment; faintly yellowish; venation thick, yellow; marginal vein somewhat longer than the stigmal, which is a little curved and not very oblique, the postmarginal one-third longer than the marginal; basal and median veins represented by faint yellow lines. Abdomen twice as long as the head and thorax united, one-third narrower than the thorax; segment 1 as long as its posterior width, at base with a raised prominence that projects forward into the propodeum; 2 one-half longer than 1; 3 a little longer than 2, one-third longer than wide; 4 slightly shorter than 2; 5 three-fourths as long as 4; 6 as long as 5, almost twice as long as its greatest width, sharply pointed at apex; 1 with a strong lateral carina which is weaker on 2, faint on 3; 1 striate, its prominence smooth; 2-5 rather finely, somewhat irregularly longitudinally striate, and with shallow punctures between the striae, 6 smooth with obscure punctures at base, coriaceous apically; pubescence scattered, but longer and denser on lateral margins and on segments 4-6.

Male.—Length, 2.75-3.00 mm. Propodeum moderately long medially, its posterior margin gently concave, the lateral carinae long; pubescent medially and armed on either side with a strong raised carina ending posteriorly in an erect triangular tooth, the carinae well apart and converging a little posteriorly. Abdomen somewhat narrower than in the female, gradually tapering to apex from segment 2; segment 1 raised, flat and tri-carinate medially; 3 one-half longer than wide; 6 somewhat shorter than 5; 7 one-half as long as 6, deeply concave and sharply bidentate at apex; striation more regular than in the female, very sparse, there being about eight striae in a transverse count, the punctures very obscure; 6 almost smooth; 2-4 with a median stria or carina. Antennae black, the scape fuscous; pedicel one-half longer than wide; funicle 1 longer than the pedicel, twice as long as wide, 2 and 3 each slightly shorter than 1, 4-9 sub-equal, each slightly longer than wide.

Habitat.—North Queensland; Cairns district, one female, three males in May-January, A. P. Dodd.

Holotype in the South Australian Museum, I. 11,067.

The original descriptions of *nigriscapus* and *paucipunctatus* were based on male specimens. A small slender species with the propodeal teeth in the female small and well-separated, in which respect it resembles *discissus*. It differs from *discissus* in the short lateral carinae

of the female propodeum, the less slender thorax, the less quadrate head, and the more distinct striation of the abdomen, while the male may be recognised by the very slender sparsely striate abdomen.

PROSAPEGUS DISCISSUS n. sp.

Female.—Length, 3.75 mm. Black, the tegulae red; legs, including the coxae, bright reddish-yellow; antennal scape reddish yellow, the pedicel and funicle joints suffused with red.

Head from dorsal aspect sub-quadrate, one-half wider than long; vertex rather long, sloping gently to the posterior border which is somewhat concave and not margined; eyes large, not very wide apart; ocelli moderately large, equidistant apart, the lateral pair almost touching the eyes; vertex, frons and cheeks with moderate-sized dense punctures and somewhat coriaceous; between the ocelli the surface is smooth except for short wrinkles; frontal impression rather deep, circular, not sharply defined, faintly sculptured, separated from the eyes by two or three rows of punctures; above the antennal insertion there is a median carina for some distance; pubescence fine, short, rather dense. Antennal scape moderately long and slender; pedicel slender, three times as long as its greatest width; funicle 1 not or scarcely longer than the pedicel, 2 much shorter, one-half longer than wide, 3 a little longer than wide, 4 slightly widened, as wide as long; club slender, 6-jointed, joint 1 very slightly the longest, 1-5 each plainly wider than long. Thorax rather slender, almost twice as long as its greatest width; pronotum narrowly visible on the sides, densely punctate and pubescent; scutum as long as its greatest width, somewhat declivous against the anterior margin of the median lobe; parapsidal furrows complete, foveate, widening and approaching close together posteriorly where they are separated by not much more than their own width; median lobe of scutum with dense moderately small punctures on the anterior half, with scattered punctures on the posterior half, and fine reticulation against the parapsidal furrows; lateral lobes with fine impressed reticulation and scattered small punctures; scutellum smooth with scattered punctures; pubescence of scutum and scutellum of fine white hairs; metanotum very short, unarmed, not prominent; propodeum moderately long, completely and rather broadly divided at its base medially, where it is armed on either side with a triangular sub-erect punctate and pubescent tooth, the lateral carinae strong and straight, the surface within the lateral carinae finely punctate, outside the lateral carinae finely punctate and pubescent, the posterior margin within the lateral carinae deeply concave to its base medially. Legs slender; posterior tarsi no longer than their tibiae, their basal joint as long as 2-5 united. Forewings reaching apex of fourth abdominal segment; lightly infusate; venation deep brown; marginal vein a little longer than the stigmal which is long, oblique, somewhat curved, the postmarginal almost twice as long as the marginal; basal and median veins represented by thick pale lines. Abdomen slender, twice as long as the head and thorax united, one-sixth narrower than the thorax, its dorsal surface flat; segments 1-3 with a strong lateral carina which fails on 4; 1 slightly wider posteriorly than basally, as long as its basal width, at base with a blunt prominence that projects forward into the propodeum; 2 two-thirds longer than 1; 3 a little longer than 2, a little longer than wide; 4 slightly shorter than 2; 5 somewhat shorter than 4; 6 as long as 5, one-half longer than its basal width, its apex

sharply convex and almost pointed; 1 longitudinally striate medially, smooth between the striae, densely punctate laterally; 2 and 3 confluent punctate and rather finely indefinitely striate; 4 with shallow punctures and finer more definite striae; 5 with shallow indefinite punctures, becoming coriaceous laterally and posteriorly; 6 densely coriaceous; dorsum of segments 1-4 with fine inconspicuous pubescence; 5 and 6 dorsally and lateral margins of abdomen with dense long pubescence.

Male.—Coxae dusky-brown. Propodeum not divided to its base medially where it is moderately short with two rather widely-separated strongly raised and somewhat pubescent median carinae which converge somewhat posteriorly, the surface depressed and punctate between the median carinae, smooth between the median and lateral carinae, the posterior border margined and somewhat concave between the lateral carinae. Segment 1 of abdomen somewhat raised and flat medially at base but not produced forward; 6 one-half as long as 5 and as its basal width; 7 very short, transverse, truncate at apex and armed on either side with a moderately long acute spine; 2 and 3 with the fine striae more definite, the punctures less definite. Antennae black, the scape golden-yellow; funicle 1 a little longer than the pedicel, fully twice as long as wide; 2 a little shorter than 1 or 3; 3 slightly shorter than 1; 4-9 subequal, each one-half longer than wide and somewhat shorter than 3.

Habitat.—Queensland; Brisbane, one female (holotype) and one male (allotype) in December and January, A. P. Dodd; Mt. Tambourine, two females in March, A. P. Dodd; Beenleigh, one female in December, A. A. Girault; Westwood, three males in February-November, A. P. Dodd. New South Wales; Hawkesbury River, one female, four males in January-March, A. P. Dodd.

Holotype and *Allotype* in the Queensland Museum.

Paratypes in the author's collection.

The female may be distinguished by the more quadrate head and the completely divided propodeum with its well-separated teeth; while the male may be recognised by the fact that the abdomen is definitely striate as well as punctate.

PROSAPEGUS INSIGNIS n. sp.

Female.—Length, 4.5-7.0 mm. Black; tegulae red; legs, including the coxae, bright red, the tarsi faintly dusky or almost black; antennal scape bright or dusky red, the pedicel and funicle 1 and 2 sometimes reddish.

Head from dorsal aspect $2\frac{1}{2}$ times as wide as long, more transverse than usual, the eyes wider apart; sloping from just behind the lateral ocelli to the occipital margin; ocelli very large, the lateral pair separated from the eyes by one-half their own diameter and from each other by fully twice their diameter; frons, vertex and cheeks with large confluent or sub-confluent punctures which are arranged transversely behind the line of the lateral ocelli; frontal impression moderately shallow, separated from the eyes by three or four rows of punctures, smooth; pubescence of long fine hairs; mandibles stout, tridentate, the outer teeth blunt, the inner tooth very small. Antennal scape moderately long and slender; pedicel fully twice as long as its greatest width; funicle 1 elongate, three-fourths longer

than the pedicel, one-half as long as the scape; 2 abruptly shorter, one-half longer than wide; 4 as wide as long; club slender, joint 1 as long as wide, 2-5 each a little wider than long. Thorax one-third longer than its greatest width; pronotum confluent punctate; scutum and scutellum highly polished; median lobe of scutum with a flat or sub-depressed area anteriorly which bears rather dense punctures, the rest of the median lobe and the lateral lobes with large scattered punctures, the abruptly declivous anterior margin of the median lobe with smaller confluent punctures; parapsidal furrows foveate, widening posteriorly; scutellum with large scattered punctures; pubescence of scutum and scutellum of long fine hairs; propodeum shorter, flatter, and broader than usual, the lateral carinae close to the median process, the posterior margin uniformly gently concave except for the projecting lateral carinae, the surface outside these carinae broad and with dense white pubescence; median process of propodeum densely coarsely punctate and with scattered long hairs, large, very broad at base, not as long as its basal width, projecting shortly over the abdominal hump, broad at apex and shortly concave, the two teeth short, truncate or blunt. Forewings extending to apex of fourth abdominal segment; rather deeply embrowned; venation blackish; marginal vein somewhat shorter than the stigmal, the postmarginal a little longer than the stigmal; basal and median veins represented by thick light brown lines; radial vein indicated by a long darker brown line forming an elongate false radial cell which is almost closed; veins $M\ 3 + 4$ and $Cu\ 1$ (Tillyardian notation) indicated by long light brown lines. Posterior tarsi about one-fifth shorter than their tibiae, their basal joint slightly longer than 2-5 united. Abdomen two-thirds longer or almost twice as long as the head and thorax united; gradually tapering to apex, its lateral outline gently convex, broadest at apex of segment 2; its greatest width almost as great as that of the thorax, the dorsal surface flat; segments 1-4 strongly carinate laterally; 1 no longer than its basal width, two-thirds as long as its posterior width, at base medially with a broad prominence which projects forward slightly into the propodeum; 2 one-half longer than 1; 3 as long as 2, three-fourths as long as wide; 4 a little shorter than 3, as long as its posterior width; 5 a little shorter than 4; 6 slightly shorter than 5, as long as or one-half longer than its basal width, the sub-apical plate sharply convex; 1-3 strongly confluent punctate with a longitudinal arrangement, 1 with also irregular strong striae except laterally; 4 with shallower punctures and irregular longitudinal striae; on 5 and 6 the punctures are shallow and indefinite, and the striae are stronger and sparser, although sometimes absent on 6; 1-4 without pubescence dorsally, with long fine pubescence below the lateral carinae; 5 and 6 with scattered long fine hairs; 2 with a median carina which may show faintly on 3-5.

Male.—Segment 4 of abdomen three-fourths as long as its posterior width; 5 one-fourth shorter than 4; 6 one-half as long as 5, one-half as long as its posterior width; 7 very short, at apex broadly concave and with a short acute spine on either side; 1 somewhat raised but flat at base, its anterior margin straight; punctures and pubescence on apical segments more pronounced, the striation less definite than in the female. Propodeal process narrower than in the female, the teeth closer together. Antennae black, the scape red or almost wholly black; scape rather short; pedicel small, hardly longer than wide; funicle 1 elongate, fully one-half as long as the

scape; 2.9 sub-moniliform; 2 and 3 sub-equal, each a little more than one-half as long as 1; 4.9 sub-equal, each slightly shorter than 3, and somewhat longer than wide.

Habitat.—Queensland; Jericho, one female in March; Gogango, eight females, four males in March; Biggenden, one male in January; Chinchilla, five females, two males in February-March; Dulacca, one male in March. New South Wales: Moree, one female in April. All collected by the author.

Holotype and *Allotype* in the Queensland Museum; *Paratypes* in the author's collection.

A fine species with large punctures and rather broad abdomen, which in the female bears very sparse pubescence on the dorsal segments. It appears to have a wide range in Central and Southern Queensland and North-West New South Wales, frequenting the brigalow (*Acacia*) and belar (*Casuarina*) scrubs of the sub-coastal and interior districts. The size is variable, and to a lesser degree is the colour of the antennae and tarsi. In the series from Gogango, collected on the one day, are found the smallest examples, varying from 4.5 to 5.5 mm., except one male which measures 6.5 mm. The Jericho female measures 5 mm., while the Chinchilla specimens vary from 6 to 7 mm. In the smaller examples the abdomen is shorter in relation to the head and thorax, and the apical segments in the female are shorter in relation to their width. The antennal scape is usually red, but is black in one Chinchilla female and in the males from Dulacca and Biggenden. The tarsi vary from almost clear red to black. The size of the propodeal teeth vary in the male and may be divergent although more often close together. The holotype and allotype have been selected from Chinchilla specimens.

PROSAPEGUS VALIDUS n. sp.

Female.—Length, 3.80 mm. Black, the tegulae red; legs, including the coxae, bright red; antennal scape red, the next three joints suffused with red, the remainder black.

Head rather more transverse than usual and sloping more gently to the occipital margin which is gently concave; vertex, frons and cheeks rather strongly sub-confluently punctate and somewhat coriaceous, with a pubescence of fine white hairs; frontal impression broad, shallow, separated from the eyes by two rows of punctures, smooth but with oblique striae ventrally; mandibles bidentate, the teeth short, stout and blunt. Antennal scape moderately long and stout; pedicel twice as long as its greatest width; funicle 1 no longer than the pedicel, 2 as wide as long, 3 and 4 wider than long, 4 a little widened; club slender, joints 2.5 each much wider than long, 1 slightly longer. Thorax one-fourth longer than its greatest width; parapsidal furrows deep, foveate, widening posteriorly; median lobe of scutum with moderately large punctures, confluent anteriorly, separated posteriorly, the lateral lobes with scattered shallower punctures and fine impressed reticulation; scutellum with scattered punctures; pubescence of scutum and scutellum of fine white hairs; propodeum moderately long laterally, short medially, punctate, weakly pubescent outside the irregular rather weak lateral carinae, the posterior margin moderately deeply concave but not carinate between the lateral carinae; propodeal process short, pubescent, broadly triangular, not projecting beyond the posterior margin, divided

for some distance from apex, the two teeth short, blunt, separated. Posterior tarsi no longer than their tibiae, their basal joint slightly longer than 2-5 united. Forewings reaching almost to apex of fifth abdominal segment; lightly stained brownish; venation thick, blackish; marginal vein two-thirds as long as the stigmal, the post-marginal twice as long as the marginal; basal, median and radial veins faintly marked. Abdomen one-fourth longer than the head and thorax united, slightly narrower than the thorax, $2\frac{1}{2}$ times as long as its greatest width, widest at base of segment 3, tapering to apex, its outline regularly ovate; segments 1-4 strongly carinate laterally, 2 with a median carina; 1 rather short, two-thirds as long as its basal width, one-half as long as its posterior width, its anterior margin straight, strongly depressed on either side at base, so that the flat meson is raised as in species of *Oxyscelio*; 2 one-half longer than 1; 3 scarcely longer than 2, a little more than one-half as long as wide; 4 a little shorter than 3; 5 two-thirds as long as 4, one-half as long as its basal width; 6 as long as 5, as long as its basal width, bluntly acuminate at apex which is depressed and without a sub-apical plate; 1 striate, densely punctate between the striae; 2-4 rather strongly confluent punctate with a longitudinal arrangement; 5 and 6 more shallowly confluent punctate; pubescence short on 1-4, long below the lateral carinae and on 5 and 6.

Male.—Unknown.

Habitat.—South-west Queensland; Goondiwindi, one female in January, A. P. Dodd.

Holotype in the Queensland Museum.

A very distinct species on account of the shorter broader abdomen and the shorter first funicle joint, and with the general appearance of species of *Hoploteleia* Ashmead and *Oxyscelio* Kieffer.

PROSAPEGUS FUSCICORPUS Dodd.

Cacellus fuscicarpus Dodd, Trans. Royal Soc. South Aust., xl, 1916, p. 24.

Female.—Length, 2.80-3.50 mm. Head black; thorax and abdomen dull or dusky brown or reddish-brown; legs, including the coxae, pale yellow; antennal scape pale yellow, the pedicel and funicle joints brownish-yellow, the club black.

Head from dorsal aspect less than twice as wide as long; occipital border rounded and not margined; upper frons and vertex with numerous punctures of moderate size which sometimes become dense and sub-confluent toward the occiput; lower two-thirds of frons with a broad smooth shallow impression which is separated from the eyes by one row of punctures; cheeks smooth with scattered punctures; mandibles tridentate, the teeth small. Antennal scape moderately slender; pedicel slender; funicle 1 elongate, one-third longer than the pedicel; 2 a little shorter than the pedicel, fully twice as long as wide; 3 a little longer than wide; 4 as wide as long; club compact, 6-jointed, joint 1 almost as long as wide, 2-5 each plainly wider than long. Thorax one-half longer than its greatest width; pronotum with dense punctures; parapsidal furrows deep and punctate; anterior half of median lobe of scutum with dense punctures, the posterior half and the lateral lobes with scattered indefinite shallow punctures; scutellum smooth except for scattered indefinite punctures; scutum and scutellum with a pubescence of fine white hairs; propodeum long laterally, rather short medially, the lateral carinae long and distinct, the posterior margin within the lateral carinae deeply

concave and strongly margined; propodeum armed medially with a pair of parallel carinae, close together, which project for half their length in the form of slender teeth beyond the posterior margin but not further than a line drawn across the posterior ends of the lateral carinae; outside the median carinae on either side there is a short straight carina joining the posterior margin; surface of propodeum shining and hardly sculptured within the lateral carinae. Forewings reaching to posterior margin of fifth abdominal segment; slightly stained; venation yellow; marginal vein a little longer than the stigmal, the postmarginal $2\frac{1}{2}$ times as long as the marginal; basal and median veins faint, pale yellow. Posterior tarsi a little longer than their tibiae, their basal joint a little shorter than 2.5 united. Abdomen one-half longer than the head and thorax united, three-fourths as wide as the thorax, widest at posterior margin of segment 3; segments 1-4 carinate laterally; 1 as long as its posterior width, slightly raised at base, its anterior margin straight and free from the thorax; 2 one-third longer than 1; 3 a little longer than 2, slightly longer than wide; 4 as long as 2; 5 two-thirds as long as 4; 6 as long as 5, slightly longer than its basal width, narrowly truncate or faintly concave at apex; 1 with several striae, punctate laterally, smooth at base medially; 2-4 confluent punctate and irregularly striate; 5 more finely shallowly punctate and finely striate; 6 finely punctate and densely coriaceous; 1-4 dorsally with short pubescence; 5 and 6 and sides of abdomen with longer denser pubescence.

Male.—Length, 2.85 mm. Black, the propodeum and sides of thorax brownish; legs, including the coxae, golden-yellow; antennal scape yellow, the pedicel dusky-yellow, the flagellum black.

Propodeum densely reticulate-punctate, moderately long medially, the posterior margin rather gently concave, the median process reduced to a pair of raised carinae which are parallel and close together. Segment 1 of abdomen somewhat longer than its posterior width; 2 and 3 sub-equal; 4 somewhat shorter; 5 slightly shorter than 4; 6 two-thirds as long as 5; 7 transverse, armed with a pair of stout spines. Antennal scape moderately short; pedicel short and stout; funicle 1 slender, $2\frac{1}{2}$ times as long as wide; 2 and 3 a little shorter, sub-equal; 4 distinctly but not greatly shorter than 3; 4-9 slightly decreasing in length, 9 one-half longer than wide.

Habitat.—North Queensland; Cairns district, six females, two males in July to January, A. P. Dodd.

Holotype in the South Australian Museum, I. 5,423.

The only Australian species which is not wholly black. The female resembles *augustus*, *regalis* and *illustris* in propodeal characters and in the straight anterior margin of the abdomen, but differs in the weak punctuation of the scutum posteriorly. This same character separates the male from *fissilis* and *augustus* and allies it with male *discissus*; in the latter species, however, the propodeum has the median carinae wide apart at base, and the postmarginal vein is much shorter in relation to the marginal.

PROSAPEGUS INFUSUS n. sp.

Female.—Length, 4.15 mm. Black, the tegulae dusky; antennae black, the scape washed with red; coxae black, washed with red, the trochanters, femora and posterior tibiae deep red, the anterior and intermediate tibiae blackish except the red base and apex, the tarsi blackish.

Head from dorsal aspect twice as wide as its median length vertex sloping shortly to the posterior margin from well behind the lateral ocelli, the posterior margin rather gently concave; cheeks broad ventrally; frontal impression broad and deep, smooth, with fine oblique striae ventrally and a few fine transverse striae dorsally; vertex and upper frons somewhat coriaceous, with rather large sub-confluent punctures which behind the lateral ocelli tend toward arrangement in transverse rows; cheeks polished, the punctures numerous but separated; pubescence fine and pale. Antennal scape moderately long and slender; pedicel over twice as long as its greatest width; funicle 1 one-third longer than the pedicel; 2 hardly more than one-half as long as 1; 3 shorter, as wide as long; 4 a little widened, somewhat wider than long; club slender, joint 1 as long as wide, 2-5 somewhat wider than long. Thorax almost one-half longer than its greatest width; parapsidal furrows deep and foveate, approaching rather close together posteriorly; median lobe of scutum on anterior half with moderately large dense punctures, with scattered punctures along lateral and posterior margins, a posterior-central area smooth except for a longitudinal line of small punctures, and there are fine impressed longitudinal striae against the anterior half of the parapsidal furrows; lateral lobes with scattered punctures and fine impressed lines; scutellum very strongly foveate at base, its surface with large punctures but the median line bears small punctures; punctures of scutum and scutellum bearing long fine white hairs; propodeum long laterally, moderately short medially, the posterior margin sharply rather deeply concave within the limits of the lateral carinae, the surface pubescent outside the lateral carinae, punctate within these carinae, which are long and strong; on either side of the median process is a strong carina which diverges somewhat to join the lateral carina in a projecting tooth at the posterior margin; median process narrowly triangular, extending beyond the concave posterior margin almost to a line drawn across the ends of the lateral carinae, hollowed out, its lateral margins carinate and forming at apex a bidentate tooth, the teeth short, sub-acute, close together. Forewings reaching to apex of fifth abdominal segment; distinctly brownish; venation blackish; marginal vein as long as the long stigmal, the postmarginal three times as long as the marginal; median vein marked by a thick brown line, the basal vein by a pale line. Posterior tarsi slightly longer than their tibiae, their basal joint slightly longer than 2-5 united. Abdomen one-half longer than the head and thorax united, its greatest width a little yet distinctly less than that of the thorax, four times as long as its greatest width toward the base of segment 3, its lateral outline regularly gently convex, its dorsal surface flat; segments 1-4 strongly carinate laterally; 1 slightly longer than its basal width, three-fourths as long as its posterior width, its anterior margin straight and distinctly separated from the propodeum, with a deep fovea on either side at base, so that the median area is strongly raised basally; 2 one-third longer than 1; 3 a little longer than 2, three-fourths as long as wide; 4 as long as 2, slightly shorter than its posterior width; 5 four-fifths as long as 4, one-fourth longer than its posterior width; 6 a little shorter than 5, hardly longer than its basal width, depressed just before apex but without a plate, the apex in the form of a sub-acute tubercle; 1 strongly striate, punctate between the striae; 2-5 with strong sub-confluent punctures which are separated in irregular longitudinal rows by

irregular striae and are shallow on 5 and posterior half of 4; 6 densely shallowly punctate and coriaceous; pubescence very short and hardly noticeable on dorsum of 1-4, long and dense on 5 and 6 and along lateral margins.

Male.—Length, 4.00 mm. Coxae and tarsi dusky-black, the legs bright reddish yellow, the first two pairs of tibiae washed lightly with brown. Antennae wholly black; scape stout and rather short; funicle 1 almost twice as long as the pedicel, $2\frac{1}{2}$ times as long as its greatest width; 2 two-thirds as long as 1; 2-9 sub-equal. Propodeum longer medially than in the female, the posterior margin moderately deeply concave, the process shorter and scarcely projecting beyond the posterior margin. Abdomen widest at apex of segment 3, a little more than three times as long as its greatest width; segments 2 and 3 with a strong median stria or carina; foveae at base of 1 shallow, the median area not as strongly raised as in the female; 5 two-thirds as long as 4, somewhat shorter than its posterior width; 6 two-thirds as long as 5 or as its posterior width; 7 very short, truncate, armed on either side with a short stout spine; pubescence on dorsum fine but more noticeable than in the female.

Habitat.—New South Wales; Canberra, one female, one male, in January, Miss L. F. Graham.

Holotype and *Allotype* in the collections of the Division of Economic Entomology, Canberra.

This species has no very close allies and may be recognised by the following combination of characters:—Dark coxae, unevenness of the punctuation of the scutum, rather stout abdomen with its straight anterior margin in the female, and the long straight carina on either side of the propodeal process joining the lateral carina posteriorly.

PROSAPEGUS EXTENSUS n. sp.

Female.—Length 5.10 mm. Black, the tegulae yellow; legs, including the coxae, bright golden-yellow, the tarsi dusky; antennae golden-yellow, the club black.

Vertex and frons with moderately large dense punctures, confluent toward the occiput; frontal impression smooth, deep, rather narrow, not margined, separated from the eyes by two or three rows of punctures; cheeks with dense punctures, confluent above. Pedicel slender; funicle 1 elongate, one-third longer than the pedicel; 2 a little shorter than the pedicel; 4 as wide as long; club slender, joint 1 as long as wide, 2-5 slightly wider than long. Thorax one-half longer than its greatest width; parapsidal furrows deep and complete, widening and approaching rather close together posteriorly; median lobe of scutum with moderately large punctures, confluent anteriorly, more open posteriorly, the lateral lobes, except along the punctate-foveate margins, with fine impressed reticulation and shallow scattered punctures; pronotum, scutum and scutellum with a pubescence of long white hairs; propodeum very short medially, its posterior margin very deeply concave, the lateral carinae straight and moderately short, the surface densely pubescent outside the carinae, punctate within the carinae; median process of propodeum densely finely punctate and pubescent, projecting over the abdominal prominence, as long as its basal width, its lateral margins parallel, its posterior margin in the form of two stout rounded teeth, the concavity between the teeth not extending for one-half its length; from

lateral aspect the process is in the form of a strong curved stout spine. Posterior tarsi one-fourth longer than their tibiae, their basal joint one-half longer than 2-5 united. Forewings extending to one-half the length of segment 4 of abdomen; lightly brownish; venation fuscous; marginal vein as long as the stigmal, the postmarginal twice as long as the marginal; basal and median veins faint. Abdomen twice as long as the head and thorax united, its greatest width three-fourths that of the thorax, gradually tapering to apex from segment 2; segment 1 a little shorter than its posterior width, at base with a rounded prominence that projects forward into the propodeum; 2 one-half longer than 1, one-fourth longer than wide; 3 as long as 2; 4 a little shorter than 3; 5 about one-fifth shorter than 4, one-third longer than its basal width; 6 as long as 5, over twice as long as its basal width, the apical margin convex; 1 strongly punctate, medially with several strong striae, the basal prominence almost smooth in front; 1-3 with a strong lateral carina, 2 and 3 with a faint median carina; 2-4 with large confluent punctures in irregular longitudinal rows; 5 and 6 more shallowly punctate; pubescence short on 1-3, long and dense on 4-6 and sides of abdomen.

Male.—Length, 4.30-4.60 mm. Propodeum moderately deeply concave medially, the lateral carinae normally long, the process somewhat narrower than in the female. Abdomen rather shorter, about three-fourths longer than the head and thorax united, not noticeably tapering to apex from segment 2; segment 1 with the anterior margin straight, the meson rather narrowly raised and flat, the raised area with three strong striae; 5 hardly longer than its basal width; 6 two-thirds as long as 5, as long as its basal width; 7 short, its apical margin concave and rather strongly bispinose. Antennae black, the scape bright yellow; funicle 1 one-half longer than the pedicel, 2 as long as the pedicel, 3 no longer than 2, 4-9 almost sub-equal, each slightly longer than wide.

Habitat. — North Queensland; Cairns district; two females, seven males in February, A. P. Dodd.

Holotype and *Allotype* in the Queensland Museum.

Paratypes in the author's collection.

This species may be recognised by the form of the propodeal process in both sexes, the long first metatarsal joint, and the long tapering abdomen of the female.

PROSAPEGUS ILLUSTRIS n. sp.

Female.—Length, 4.25 mm. Black, the tegulae deep brown; legs, including the coxae, bright golden-yellow, the tarsi dusky; antennae black, the scape suffused with red.

Upper frons and vertex with rather dense large punctures, which are confluent behind the ocelli; frontal impression large, smooth, separated from the eyes by a row of large punctures. Pedicel fully twice as long as its greatest width; funicle 1 slender, several times as long as its greatest width, rather less than twice as long as the pedicel, 2 as long as the pedicel, 3 shorter, one-half longer than wide 4 wider than long; club joint 1 a little wider than long, 2-5 each twice as wide as long. Thorax one-half longer than its greatest width; parapsidal furrows complete, consisting of a row of punctures; median lobe of scutum with very large well-separated punctures, which are smaller and confluent toward the anterior margin, the lateral lobes with a few scattered punctures; scutellum with numerous large

punctures; propodeum rather long, densely pubescent outside the long straight lateral carinae, almost smooth within the carinae, the carinate posterior margin within the lateral carinae rather deeply concave for one-half the propodeal length; median area of propodeum rectangular, lightly pubescent, armed with a long slender bicarinate tooth whose carinae are parallel and close together, the tooth faintly bidentate at apex; from lateral aspect this tooth is sub-erect, stout, and strongly curved. Posterior tarsi one-fifth longer than their tibiae, their basal joint as long as 2-5 united. Forewings reaching to one-half the length of the fifth abdominal segment; distinctly brownish; venation thick, fuscous; marginal vein as long as the stigmal, the postmarginal twice as long as the stigmal; median vein marked by a light brown thick line, the basal vein faint and very oblique. Abdomen two-thirds longer than the head and thorax united, about one-fourth narrower than the thorax; widest at the third segment, the lateral outline uniformly very gently convex; segment 1 flat medially, its anterior margin straight and well-separated from the thorax; 2 one-half longer than 1, 3 as long as 2, 4 about four-fifths as long as 3, 5 two-thirds as long as 4; 6 three-fourths as long as 5, a little shorter than its basal width, its sub-apical plate distinctly concave and shortly bispinose; 1-4 with a strong lateral carina and with a faint median carina; 1 with strong sparse striae, smooth between the striae except laterally where shallow punctures occur; 2-5 confluent punctate, the punctures divided into irregular longitudinal rows by wavy striae, the punctures shallow and more or less obscure on 5; 6 densely coriaceous and indefinitely punctate; 1-4 with short inconspicuous pubescence, which is long and dense on 5 and 6 and lateral margins of 1-4.

Male.—Length, 4.05 mm. Agreeing very closely with the female except that the apex of the abdomen is broader and blunter; segment 6 somewhat shorter than its posterior width; 7 very short, broadly concave and shortly bispinose at apex. Antennae black, the scape suffused with deep red; pedicel less than twice as long as its greatest width; funicle 1 two-thirds longer than the pedicel, over thrice as long as its greatest width; 2 as long as the pedicel; 3 slightly longer than 2, faintly excised on one side; 3-9 very gradually shortening; 9 one-half longer than wide.

Habitat.—North Queensland; Cairns district, two females, one male in December, A. P. Dodd.

Holotype and *Allotype* in the Queensland Museum.

Paratype in the author's collection.

This species agrees with *regalis* and *augustus* in the form of the propodeal process and in the anterior margin of the abdomen being straight and well-separated from the thorax. It differs from those two species in the larger punctures of the scutum, and in the first abdominal segment being flat medially, while the propodeal process is similar in both sexes and is not reduced in the male.

PROSAPEGUS AUGUSTUS Dodd.

Acellus augustus Dodd, Archiv. fur Naturg., Berlin, lxxx, 1915. *C. propinquus* Dodd, Trans. Royal Soc. South Aust., xl, 1916, p. 23.

Female.—Length, 4.35 mm. Black; tegulae dull yellow; legs, including the coxae, golden-yellow, the tarsi dusky brown; antennal scape yellow, the pedicel and funicle joints suffused yellowish, the club black; mandibles red.

Vertex and upper frons with rather large confluent or sub-confluent punctures; lower two-thirds of frons with a deep smooth immargined impression which is separated from the eyes by one or two rows of punctures; cheeks with numerous non-confluent punctures. Antennal scape moderately long and slender; pedicel twice as long as its greatest width; funicle 1 a little less than twice as long as the pedicel, several times as long as wide, 2 as long as the pedicel, 3 shorter than 2, less than twice as long as wide, 4 as wide as long; club 6-jointed, compact, joint 1 the longest, scarcely wider than long, 2-5 each twice as wide as long. Thorax one-half longer than its greatest width; pronotum narrowly visible laterally, its anterior angles rounded; scutum large, broadly rounded anteriorly, with rather long fine pubescence, the median lobe with moderately large confluent punctures, the lateral lobes with shallow confluent punctures and finely coriaceous; parapsidal furrows complete and distinct, separated posteriorly by rather more than one-half their length; scutellum with rather dense punctures laterally, with scattered punctures medially; metanotum a foveate line, not raised or armed; propodeum moderately long, densely pubescent outside the lateral carinae, shining and weakly pubescent inside the lateral carinae, these carinae rather long, curved posteriorly to join the posterior margin in a projecting point; a strong shorter carina occurs on either side nearer the median line; posterior margin rather deeply concave and margined within the lateral carinae; median process of propodeum in the form of two adjacent sub-parallel carinae which project beyond the posterior margin for nearly one-half their length in a slender shortly bidentate tooth, which from lateral aspect is almost horizontal. Legs slender; posterior tarsi one-fifth longer than their tibiae, their basal joint as long as 2-5 united. Forewings reaching to base of apical abdominal segment; lightly stained brownish, the infuscation inclined to be lighter along the margins; venation thick; marginal vein as long as the long moderately oblique stigmal, the postmarginal $2\frac{1}{2}$ times as long as the marginal; median vein marked by a thick brown line, the basal vein pale and very oblique. Abdomen two-thirds longer than the head and thorax united, its greatest width two-thirds that of the thorax, somewhat narrowed at base, almost pointed at apex, the lateral margins of segments 2-4 sub-parallel; segment 1 a little raised and convex at base medially, its anterior margin straight and well-separated from the propodeum, two-thirds as wide basally as posteriorly, as long as its posterior width; 2 one-half longer than 1; 3 as long as 2, as long as or slightly longer than wide; 4 very slightly shorter than 3; 5 two-thirds as long as 4; 6 a little shorter than 5, a little longer than its basal width, its sub-apical plate concave and shortly bispinose; 1-4 with a strong lateral carina; 1 smooth and with several striae medially, densely punctate laterally; 2-4 with moderately large confluent punctures with an irregular longitudinal arrangement; 5 with shallow punctures; 6 densely coriaceous and with indefinite punctures; pubescence of 1-4 of fine short hairs; 5 and 6 and lateral margins with dense long fine hairs.

Male.—Length, 4.30 mm. Propodeum long medially, finely punctate and sparsely pubescent, the posterior margin gently concave within the lateral carinae, the median process reduced to a pair of parallel carinae, rather close together, which do not project beyond the posterior margin. Abdomen three-fourths longer than the head

and thorax united, slender, gradually widening to the apex of segment 4; segments 1-3 carinated laterally; 1 a little longer than its posterior width, without a definite raised area medially where there are two strong and two weaker striae, densely punctate laterally; 2 almost one-half longer than its posterior width; 3 one-third longer than its posterior width; 4 a little longer than wide; 6 one-half as long as 5 or as its basal width; 7 very short and transverse, concave and very strongly bispinose at apex. Antennae black, the scape golden-yellow; funicle 2 a little longer than the pedicel, twice as long as wide, 1 one-half longer than 2, 3 as long as 2 and slightly excised on one side, 4-9 very gradually shortening, 9 one-half longer than wide.

Habitat.—North Queensland; Cairns district, a small series in July-December, A. P. Dodd.

Holotype in the South Australian Museum, I. 11,055.

Closely related to several species, such as *regalis*, *accultus*, *solitus* and *fissilis*, but at once differing in the concave bispinose sub-apical abdominal plate. The straight basal margin of the abdomen, well separated from the propodeum, is found in *regalis*. The male is nearest *fissilis*, the differences being pointed out in the discussion of that species.

PROSAPEGUS REGALIS Dodd.

Cacellus regalis Dodd, Trans. Royal Soc. South Aust., xxxix, 1915, p. 445.

Female.—Length, 4.15 mm. Black; tegulae dull yellow; legs, including the coxae, golden-yellow, the tarsi dusky; antennal scape yellow, the pedicel and funicle fuscous or suffused with yellow, the club black.

Vertex and upper frons with moderately large confluent punctures which are numerous but not confluent on the cheeks. Pedicel twice as long as its greatest width; funicle 1 elongate, two-thirds longer than the pedicel, 2 slightly shorter than the pedicel, 3 shorter than 2, one-half longer than wide, 4 quadrate; club compact, joint 1 as long as wide, 2-5 each plainly wider than long. Thorax one-half longer than its greatest width; parapsidal furrows deep and complete; median lobe of scutum with moderately large sub-confluent punctures, the lateral lobes shallowly punctate and somewhat coriaceous; scutellum sub-confluently punctate; pubescence of scutum and scutellum of moderately long, rather dense fine hairs; propodeum moderately long laterally, short medially, the posterior margin moderately concave, the lateral carinae curved, with a short carina on either side either close to the lateral carinae or to the median process; median process with two approximate parallel blunt carinae, joined basally, shortly divided and curved outward at apex, and projecting well beyond the posterior margin. Forewings reaching to base of apical abdominal segment; lightly brownish; marginal vein a little longer than the stigmal, the postmarginal one-half longer than the marginal; median vein represented by a thick brown line, the basal vein by a very pale line. Basal joint of posterior tarsi as long as 2-5 united. Abdomen two-thirds to four-fifths longer than the head and thorax united, its greatest width somewhat narrower than that of the thorax, its lateral outline uniformly gently convex, segment 3 being slightly the widest; segment 1 as long as its posterior width, somewhat convex at base medially, the anterior margin straight and well-separated from the propodeum; 2 one-half longer than 1; 3 a little longer than 2 or than its greatest width; 4 as long as 2; 5 two-thirds as

long as 4; 6 as long as 5, one-third longer than its greatest width, its sub-apical plate slightly convex; 1-3 with a lateral carina; 1 with several strong striae medially, densely punctate laterally; 2-6 with moderately large confluent punctures with a tendency toward longitudinal arrangement, the punctures shallow on 5-6; pubescence short on dorsum of 1-4, long on 5-6 and along lateral margins.

Male.—Length, 4.00 mm. Propodeum moderately short medially, its posterior margin rather gently concave within the lateral carinae; median process reduced to two strongly raised carinae which converge somewhat posteriorly and do not project beyond the posterior margins. Abdomen three-fifths longer than the head and thorax united, its lateral outline regularly gently convex, segment 3 being slightly the widest; 2 one-fourth longer than its posterior width; 3 slightly longer than its posterior width; 6 two-thirds as long as 5; 7 very short, transverse, its posterior margin concave and shortly bispinose. Antennae black, the scape yellow; segmentation as in *augustus* but the flagellar joints are somewhat shorter 2 less than twice as long as wide, 9 a little longer than wide.

Habitat.—North Queensland; Cairns district, four females, six males in April and November, A. P. Dodd.

Holotype in the South Australian Museum: I. 5,168.

This species is very close to *augustus* but in the latter the sub-apical plate of the abdomen in the female is concave and bispinose, the postmarginal vein is longer in relation to the marginal and in the male the propodeum and its carinae are rather long medially while the abdomen is more slender, segments 2 and 3 being considerably longer in relation to their width. The females of *accultus*, *solitus*, and *fissilis* differ in the deeply concave propodeum and produced basal margin of the abdomen. The male is very close to *accultus*, in which the posterior margin of the propodeum is deeply concave medially.

PROSAPEGUS DISTINCTUS Dodd.

Macroteleia distincta Dodd, Proc. Royal Soc. Qld., xxvi, 1914, p. 100.

Female.—Length, 3.70 mm. Black, the tegulae dull yellow; legs, including the coxae, golden-yellow; first six antennal joints reddish-yellow.

Head normal, from dorsal aspect twice as wide as long, gradually sloping to the occiput; cheeks, upper frons and vertex with moderately large dense punctures which are confluent with a tendency toward transverse arrangement behind the ocelli. Pedicel twice as long as its greatest width; funicle 1 elongate, two-thirds longer than the pedicel, 2 as long as the pedicel, 3 plainly shorter than 2, one-half longer than wide, 4 quadrate; club compact, 6-jointed. Thorax one-half longer than its greatest width; parapsidal furrows deep and complete; median lobe of scutum with moderately large dense punctures which are confluent anteriorly, the lateral lobes shallowly punctate and coriaceous; scutellum with numerous punctures; propodeum moderately long laterally, short medially, the posterior margin within the lateral carinae rather deeply concave and strongly carinate, the lateral carinae straight; propodeal process in the form of a sub-erect long narrow bicarinate tooth which projects for half its length beyond the median posterior margin, the carinae parallel, close together and joined except at extreme apex, not curved outward at apex. Forewings failing by a little to reach apex of abdomen; stained brownish; marginal vein a little longer than

the stigmal, the postmarginal twice as long as the marginal; median vein represented by a thick light brown line, the basal vein faintly marked. Basal joint of posterior tarsi as long as 2.5 united. Abdomen one-half longer than the head and thorax united, its greatest width somewhat narrower than that of the thorax, widest at apex of segment 3, its lateral outline regularly convex; segment 1 as long as its posterior width, somewhat convex medially at base, the anterior margin straight and well separated from the propodeum; 2 one-fourth longer than 1; 3 slightly longer than 2, scarcely as long as wide; 4 somewhat shorter than 2 or than its posterior width; 5 two-thirds as long as 4; 6 as long as 5, no longer than its basal width, its subapical plate gently convex; dorsal surface of abdomen not convex; segments 1-4 with a lateral carina; 1 strongly striate, densely punctate laterally; 2-5 densely punctate and with traces of fine irregular striae, the sculpture becoming finer on 4 and 5; 6 shallowly punctate and densely coriaceous.

Male.—Length, 3.60 mm. Propodeum much as in the female, short and deeply concave medially; propodeal process short, scarcely projecting beyond the posterior margin, the carinae divergent at base, approaching close together posteriorly. Abdomen, as in the female, one-half longer than the head and thorax united, its greatest width at the apex of segment 3; 1.3 with a lateral carina, 2 with a median carina; 1 somewhat shorter than its posterior width; 2 one-third longer than 1; 3 scarcely longer than 2, no longer than wide; 4 a little shorter than 3 or than its posterior width; 5 two-thirds as long as 4, no longer than its posterior width; 6 two-thirds as long as 5; 7 very short, broad, armed with a short spine or tooth at either posterior angle. Antennae black, the scape yellow; funicle 1 fully twice as long as wide, 2 one-half longer than wide, 3-9 very gradually shortening, 9 scarcely longer than wide.

Habitat.—New South Wales; one pair without further data.

Holotype and *Allotype* in the Macleay Museum, University of Sydney.

In the female, the form of the propodeal process and the straight anterior margin of the abdomen denote a close relationship with *regalis* and *augustus*; the latter species may be distinguished by the concave bispinose apex of abdomen. The differences between *regalis* and *distinctus* are small but numerous, and are shown hereunder:—

Lateral carinae of propodeum curved; carinae of propodeal process curved outward at apex; postmarginal vein one-half longer than the marginal; abdomen at least two-thirds longer than the head and thorax, segment 2 one-half longer than 1, 6 longer than its basal width	<i>regalis</i>
Lateral carinae of propodeum straight; carinae of propodeal process not curved outward at apex; postmarginal vein twice as long as the marginal; abdomen one-half longer than the head and thorax; segment 2 one-fourth longer than 1, 6 no longer than its basal width	<i>distinctus</i>

In the male, *distinctus* has the reduced propodeal process as in *regalis*, from which it differs in having the posterior margin of the propodeum deeply concave. In general and propodeal characters the male is nearly allied to that of *accultus*, differing as follows:—

Abdomen three-fourths longer than the head and thorax, six times as long as its greatest width, the segments relatively longer, 1 to 4 each plainly longer than its posterior width	<i>accultus</i>
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Abdomen one-half longer than the head and thorax, not more than four times as long as its greatest width, the segments shorter, 1 to 4 each not longer than its posterior width

distinctus

PROSAPEGUS FISSILIS n. sp.

Female.—Length, 5.00 mm. Black; tegulae yellow; legs, including the coxae, golden-yellow, the tarsi a little dusky; antennal scape yellow, the pedicel and funicle joints dusky yellow or deep brown, the club black.

Frons and vertex with rather large sub-confluent punctures which are dense but not confluent on the cheeks; pubescence of fine rather short pale hairs; frontal impression smooth, rather narrow, separated from the eye by three rows of punctures. Pedicel fully twice as long as its greatest width; funicle 1 two-thirds longer than the pedicel, 2 a little longer than the pedicel, 3 somewhat shorter than 2, 4 slightly longer than wide; club slender, joint 1 as long as wide, 2-5 slightly wider than long. Thorax one-half longer than its greatest width, its dorsal surface almost flat; parapsidal furrows deep and complete, rather close together but not widening posteriorly; median lobe of scutum with moderately large confluent or sub-confluent punctures, the lateral lobes with shallow punctures and fine impressed lines of reticulation; scutellum with numerous non-confluent punctures; pubescence of scutum long, fine and rather dense; propodeum long laterally, its posterior margin broadly and deeply concave almost to its base medially, the lateral carinae long and rather delicate, and with a shorter carina on either side nearer the median line, the surface finely punctate and lightly pubescent inside the carinae, densely pubescent outside the carinae; median process of propodeum finely punctate and pubescent, broadly and deeply divided almost to its base and forming two rather narrow bluntly triangular teeth which project over the abdominal prominence. Posterior tarsi one-fourth longer than their tibiae, their basal joint almost one-half longer than 2-5 united. Forewings extending almost to apex of segment 5 of abdomen; lightly infusate; marginal vein as long as the stigmal, the postmarginal fully twice as long as the marginal; basal and median veins marked by thick light lines. Abdomen a little less than twice as long as the head and thorax united, four-fifths as wide as the thorax, its lateral outline uniformly gently convex, segment 3 being slightly the widest; dorsum of abdomen not flat, but with a broad convex median ridge; segments 1-3 without the usual lateral carinae; 1 almost as long as its posterior width, at base with a rounded prominence that projects forward into the propodeum; 2 one-third longer than 1, as long as wide; 3 as long as 2; 4 very slightly shorter than 3; 5 three-fifths as long as 4, distinctly (about one-fourth) shorter than its basal width; 6 as long as 5, one-third longer than its basal width, its apical plate faintly concave; 1 densely punctate, and with irregular striae, its prominence with smaller punctures but smooth anteriorly; 2-4 confluent punctate, the punctures of moderate size and with a tendency toward longitudinal arrangement; punctures more shallow on 5 and 6; apical half of 6 densely coriaceous; pubescence short and inconspicuous on 1-4, longer and dense on 5-6 and lateral margins of 1-4.

Male.—Length, 4.50 mm. Propodeum rather long at meson, its posterior margin gently concave, the lateral carinae long and distinct; median process reduced to two strongly raised, well separated

pubescent carinae that do not project beyond the posterior margin and which from lateral aspect form blunt triangular teeth. Abdomen three-fourths longer than the head and thorax united, not raised or bluntly ridged medially; segments 1 and 2 with a lateral carina which is hardly marked on 3; 1 with its anterior margin straight, its meson convex and with three strong striae; 5 hardly as long as its basal width; 6 two-thirds as long as 5, three-fourths as long as its basal width; 7 short, armed on either side with a strong apical spine. Basal joint of posterior tarsi a little less than one-half longer than 2-5 united. Antennal scape yellow, the basal flagellar joints a little suffused with yellow; segmentation as in *extensus*.

Habitat.—Queensland; Cairns district, three females, eight males in December to February, A.P.D.; Gympie, one female, A. A. Girault; Mt. Tambourine, one female, two males in April, A.P.D., one female in February, H. Hacker.

Holotype and *Allotype* in the Queensland Museum. *Paratypes* in the Queensland Museum and the author's collection.

The description is based on the Cairns examples, from which the holotype female and allotype male have been selected. In the female from Gympie, fine impressed reticulation is present on the median lobe against the parapsidal furrows, and segment 6 of the abdomen is almost wholly coriaceous. The specimens from Mt. Tambourine are smaller, 4.10 mm., the abdomen is not more than two-thirds longer than the head and thorax united, and the basal joint of the posterior tarsi is one-fourth longer than 2-5 united.

One of the main group of closely related species. The female may be distinguished by the convex dorsal ridge and absence of lateral carinae on the basal abdominal segments. The male agrees very closely with *augustus*, but in that species the basal joint of the posterior tarsi is a little shorter than 2-5 united, and the abdomen is more slender, segments 2 and 3 being very distinctly longer than wide.

PROSAPEGUS SOLITUS n. sp.

Female.—Length, 3.50 mm. Black; tegulae reddish; legs, including the coxae, reddish-yellow; antennal scape and funicle joints reddish-yellow, the pedicel fuscous, the club black.

Vertex and frons with moderately large confluent punctures, the cheeks less densely punctate; frontal impression deep, smooth, narrow, separated from the eyes by three rows of punctures. Pedicel slender; funicle 1 elongate, one-third longer than the pedicel, 2 about one-third shorter than the pedicel and hardly one-half as long as 1, 3 and 4 as wide as long; club joint 1 almost as long as wide, 2-5 each much wider than long. Median lobe of scutum with moderately large dense punctures which become confluent anteriorly, the lateral lobes with fine impressed reticulation and shallow indefinite punctures parapsidal furrows foveate, not widening posteriorly; scutellum densely punctate; pubescence of scutum and scutellum fine and long; propodeum very short medially, the lateral carinae well marked, the posterior margin carinate and very deeply concave; propodeal process punctate and pubescent, triangular, about as long as its basal width, projecting over base of abdomen, very narrowly divided for some distance from apex, the two teeth narrow and sub-acute. Forewings reaching to apex of fifth abdominal segment; marginal vein

a little longer than the stigmal, the postmarginal twice as long as the marginal; basal and median veins very faint. Posterior tarsi one-fifth longer than their tibiae, their basal joint one-fifth longer than 2-5 united. Abdomen one-half longer than the head and thorax united, three-fourths as wide as the thorax; narrowed at base, pointed at apex, its lateral outline gently regularly convex, widest at base of segment 3; segments 1-3 carinate laterally; 1 somewhat raised at base and projecting forward into the propodeum, somewhat shorter than its posterior width; 2 one-half longer than 1; 3 a little longer than 2, as long as wide; 4 slightly shorter than 2; 5 three-fourths as long as 4, a little shorter than its basal width; 6 as long as 5, one-third longer than its basal width, its sub-apical plate convex; 1 densely punctate laterally, with several striae medially, of which the median pair are strongest; 2-4 confluent punctate with a longitudinal arrangement; 5 and 6 shallowly confluent punctate; pubescence as in *regalis* and related species.

Male.—Length, 3.50 mm. Propodeum longer medially than in the female, the posterior margin carinate and rather deeply concave between the lateral carinae, the median process narrower, the teeth projecting for some distance beyond the posterior margin. Abdomen one-half longer than the head and thorax united; segments 1-3 strongly carinate laterally, 4 more feebly so; 1 with two strong median striae; 6 one-half as long as 5, two-thirds as long as its basal width; 7 shortly strongly bispinose. Antennae black, the scape reddish-yellow; funicle 1 one-half longer than the pedicel, 2 and 3 as long as the pedicel, 4-9 each slightly longer than wide.

Habitat.—North Queensland; Cairns district, one pair in January, F. P. Dodd. New South Wales; Sydney, one female in November, A. P. Dodd.

Holotype and *Allotype* in the Queensland Museum; *Paratype* in the author's collection.

A rather small species with the second funicle joint in the female shorter than the pedicel, and the abdomen shorter in relation to the head and thorax. The base of the abdomen in the female is produced forward into the propodeum, thus differing from *augustus* and *regalis*; the basal hump is not developed as strongly as in *fissilis* and *accultus*, in both of which the propodeal process is broadly and deeply divided. In the male this process is more strongly developed than in the above four species. However, in the male *accultus* the median carinae project a little beyond the posterior margin, but they are shorter and wider apart, the posterior margin is more deeply concave, while the abdomen is longer.

PROSAPEGUS ACCULTUS n. sp.

Female.—Length, 4.60 mm. Black; tegulae reddish; legs, including the coxae, bright reddish-yellow; antennal scape and funicle joints 1 and 2 reddish-yellow, the pedicel and funicle 3 and 4 fuscous, the club black.

Frons, vertex and cheeks with moderately large confluent or sub-confluent punctures; frontal impression deep, smooth, rather narrow, separated from the eyes by two or three rows of punctures. Pedicel slender; funicle 1 one-half longer than the pedicel; 2 slightly shorter than the pedicel, twice as long as wide; 3 shorter; 4 as wide as long; club rather slender, joint 1 as long as wide, 2-5 plainly wider

than long. Thorax one-half longer than its greatest width; parapsidal furrows deep, foveate, narrow anteriorly, widening posteriorly; median lobe of scutum with moderately large punctures, dense but not confluent except anteriorly where they are smaller; lateral lobes shallowly punctate and with fine impressed reticulation; scutellum with numerous rather large punctures; pubescence fine and rather long; propodeum very short medially, long laterally, the posterior margin deeply concave and strongly margined within the limits of the lateral carinae which are well developed, the surface outside the lateral carinae densely pubescent; median process of propodeum punctate, pubescent, deeply broadly divided almost to its base in the form of two sub-acute well separated teeth which are moderately long and project over the abdominal prominence. Posterior tarsi one-fourth longer than their tibiae, their basal joint slightly longer than 2.5 united. Forewings extending beyond apex of fourth abdominal segment; lightly brownish; marginal vein slightly longer than the stigmal, the postmarginal twice as long as the marginal; basal and median veins very faint. Abdomen almost twice as long as the head and thorax united, its greatest width two-thirds that of the thorax, its lateral outline regularly gently convex, segment 3 being slightly the widest; dorsum almost flat, the lateral carinae distinct on segments 1-3; 1 a little shorter than its posterior width, at base with a rounded prominence that projects into the propodeum; 2 one-half longer than 1; 3 as long as 2, slightly longer than wide; 4 a little yet distinctly shorter than 3; 5 two-thirds as long as 4, almost as long as its basal width; 6 as long as 5, one-half longer than its basal width, its sub-apical plate convex; 1 with several strong striae, densely punctate laterally, the apex of the basal prominence smooth; 2-4 confluent punctate with a longitudinal arrangement; 5 and 6 shallowly confluent punctate; pubescence short on dorsum of 1-4, long on 5 and 6 and along lateral margins.

Male.—Length, 4.10 mm. Propodeum, as in the female, short medially, the posterior margin very deeply concave and strongly margined within the limits of the lateral carinae, the process very narrow, in the form of two strongly raised carinae which project a little beyond the posterior margin and from lateral aspect appear as triangular raised blunt teeth. Abdomen three-fourths longer than the head and thorax united; segment 1 with three strong striae medially, its anterior margin straight; 1-3 with a lateral carina which is faint on 4; 3 a little longer than 2, a little longer than wide; 5 three-fourths as long as 4, somewhat shorter than its basal width; 6 two-thirds as long as 5, plainly shorter than its basal width; 7 transverse, shortly strongly bispinose. Antennae black, the scape red; funicle 1 two-thirds longer than the pedicel, 2 and 3 each slightly longer than the pedicel, 4-9 each one-half longer than wide.

Habitat.—South Queensland; Mt. Tambourine, 2,000 feet, one female, one male in April, A. P. Dodd.

Holotype and *Allotype* in the Queensland Museum.

One of several closely related species. In the female the deeply concave propodeum, the form of the propodeal process, and the well-developed abdominal prominence are much as in *fissilis*, which species differs in the convex dorsal ridge and absence of lateral carinae on segments 1-3 of the abdomen. In the male the propodeum is shorter medially, its posterior margin more deeply concave than in *fissilis* and *regalis*, and is nearest *solitus*, the differences being pointed out in the discussion of that species.